

REMARKS

Claims 21, 22, 24, 25 and 29 - 53 are pending in the application.

Claims 33 and 44 are cancelled herein.

Claims 21, 22, 24, 25, 29, 42 and 52 are amended herein to clarify applicant's claimed invention. No new matter is introduced.

The clarification provided in the Advisory Action is appreciated. The Examiner is invited to telephone applicant's representative for an interview to review this amendment and further prosecution.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 21, 24, 25, 29-32 and 52 are rejected under 35 U.S.C. § 102(e) as being anticipated by Yuan (US6,496,704). Claims 22, 43 - 51 and 53 are "rejected for similar reasons".

Claims 21 and 52:

Applicant's features include, for example:

The binding information being transferred from the home agent of the mobile terminal to the correspondent terminal.

The binding information being information which provides a correspondence between an IP address of the mobile terminal and an IP address of a foreign agent that is accommodating the mobile terminal.

Processing and storing the binding information for the correspondent terminal.

The Office Action points to col. 3, lines 4-41, col. 4, lines 25-41, col. 5, lines 9-33 and col. 9, lines 45-52 of Yuan.

However in reviewing these section and the rest of the cited reference, including Figures 6-11, the specific features could not be corresponded the applicant's claims. Clarification is respectfully requested because these sections only generally describes mobile IP features with no teaching of the claimed features.

In the Advisory Action Yuan col. 13, lines 19-22 are repeated. However there is no description of the HA 204 or of the new MDIS 202 sending or transferring binding information to the Host 190. For example the MDIS 202 may send binding information to the HA 204, but there is no description of the MDIS 202 sending binding information to the Host 190, which the HA 204 intercepts and processes for the Host 190.

In contrast applicant's claim recites the binding information being transferred from the home agent of the mobile terminal to the correspondent terminal and the proxy correspondent node is processing and storing the binding information for the correspondent terminal.

Several scenarios of equating Yuan's Host, Home agent, Home MDIS, MES can be performed but none equate to applicant's claimed features.

No teaching of a message to a Host or MES which is processed and stored by either of a MDIS, HA, or MH could be found in Yuan. Because Yuan fails to teach each and every feature in these claims, it is respectfully requested the rejection be withdrawn.

Dependent claims 22 and 53 are likewise patentable for at least the foregoing reasons and because they each recite additional distinguishing features.

Claims 24 and 25

Applicant's claims provide features which describe registration cancellation or deleting a visitor list entry for the correspondent terminal. The claim specifics are not repeated here.

The Office Action points to col. 4, lines 25-41 and col. 5, lines 9-33. Both of these sections of Yuan describe "registration lifetime" which is different from what is claimed by applicant. No where does Yuan describe the features described in the claims.

In fact Yuan even states in col. 5, lines 28-34 "Note that although as discussed above there is no registration cancellation procedure..." In col. 5, lines 5-8 "the old foreign agent is not part of the registration process and in fact is not explicitly informed that the mobile host have moved" also col. 3, lines 28-31 describes a redirect flush.

However the Office Action appears to be relying on the Registration lifetime recited in Yuan. Registration lifetime is when a registration is active for a certain period of time, then re-registration must occur. Registration lifetime is measured from the point of registration. Yuan nor Registration lifetime, do not teach monitoring of packets, the two flag state feature, timestamp of packet feature or any of the other elements described in applicant's claims.

Again as specifically stated by Yuan there is no registration cancellation procedure, therefore it is respectfully submitted that rejections should be withdrawn.

Claims 29 and 42:

Applicant's claim 29 includes: wherein the controller further comprising a cache management unit for storing and managing a binding cache corresponding to the correspondent terminal by detecting binding information transmitted from the home agent to the correspondent node and the binding cache containing information of the mobile terminal, the information providing a correspondence between an IP address of the mobile terminal and an IP address of a foreign agent that is accommodating the mobile terminal.

Claim 42 includes "the information being transferred from the home agent of the mobile terminal to the correspondent terminal."

As pointed out above the Advisory Action Yuan asserts col. 13, lines 19-22 describes the features, however there is no description of the HA 204 or of the new MDIS 202 sending or transferring binding information to the Host 190.

In contrast applicant's claims describe the binding information being transferred from the home agent to the correspondent terminal and the proxy correspondent node is processing and storing the binding information for the correspondent terminal.

No teaching of a message to a Host or MES which is detected and stored by either of a MDIS, HA, or MH could be found in Yuan. Because Yuan fails to teach each and every feature in these claims, it is respectfully requested the rejection be withdrawn.

The dependent claims include additional distinguishing features, for example claim 38 includes a visit state unit for verifying that the correspondent terminal is still in an area where the proxy communication unit provides communication services for the correspondent terminal. As pointed out above Yuan specifically states there is no registration cancellation.

Claims 39 & 40 describes a packet monitoring unit for monitoring packet transmission from the correspondent terminal. Again the Office Action points to Registration lifetime, which requires re-registration after the lifetime period of time expires. The reference nowhere describes packet monitoring.

The other dependent claims include other distinguishing features, for example, tunneling. Significantly, by means of the proxy CN, Applicant's claimed invention provides the advantage of enabling a mobile IP system that provides route optimization to avoid requiring an MN or a CN to contain any special functions by placing required functions (holding a combined cache, capsulation of packets and so on) in the proxy CN.

A "Route Optimization" (RO) process under study by the Internet Engineering Task Force (IETF) attempts to eliminate some of the redundancies introduced by the above-described process. According to the RO process, the HA provides a new function that informs a correspondent node (CN) of the CT of a current location of the MN when the HA detects that the CN is preparing to transfer a packet to the MN via the HA. The HA accomplishes this by providing "binding information" that provides address information of the FA as an entrance to the visited network that is covering the MN. Using this information, the CT is able to perform a tunneling process in order to transmit a packet by addressing the packet to the FA instead of the home address of the MN.

In order for the CN to implement this new function, additional function must be added to the CN for performing associated service control functions (see, e.g., page 17, line 2 through page 20, line 10 of Applicant's specification). It is essentially impractical to implement all necessary function in the CN of each CT, especially in cases where the CTs are mobile terminals incorporating CNs of limited functionality.

As a result, according to the claimed invention, a proxy CN operates together with a conventional CN to perform the necessary functions (see, e.g., page 21, line 8 through page 22, line 6 of Applicant's specification).

Finally applicant respectfully submits that Yuan's MDIS, unlike Applicant's claimed proxy CN, fails to cache binding information that provides a correspondence between an IP address of the mobile terminal and an IP address of a foreign agent that is accommodating the mobile terminal.


Accordingly, Applicant respectfully submits that Applicant's independent claims 21, 24, 25, 29, 42 and 52 are not anticipated by Yuan. As claims 22, 30 - 32, 34 - 41, 42, 45 - 51 and 53

each depend from one of independent claims 21, 24, 25, 29, 42 and 52, Applicant further submits that claims 22, 30 - 32, 34 - 41, 42, 45 - 51 and 53 are also allowable for at least this reason.

Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is invited to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,


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